

SECTION 9

CAPITAL IMPROVEMENT PROGRAM AND FINANCIAL PLAN

The analysis described in the previous chapters has evaluated Cochise College Airport development needs based upon forecast increases in training activities, environmental factors and safety considerations. One of the most important elements of the master planning process is the application of basic economics and management to insure the implementation of the development plan. This chapter will concentrate on those factors that will make the development plan successful.

CAPITAL IMPROVEMENT PROGRAM AND DEVELOPMENT SCHEDULE

Chapter 6 identified specific needs for the Cochise College Airport and realistic costs have been determined and are tabulated in Appendix H. This chapter will examine the total cost of each development project and a schedule for all of the projects based upon Alternative Concept A.

The timing or schedule of each development item should be estimated to assess the effect on the College's financial system. The accepted method is to divide the planning process into three periods covering the first five years, the second five years and the final ten-year period. The first five-year period includes those items of highest priority to meet immediate safety needs and training requirements. The second five-year period includes those items associated with expansion of the airside and landside facilities to enhance the operational and training capacity of the airport. The final ten year period includes the remaining airside facilities require to continue the growth of the aviation training program.

Table 9-1, Summary of Total Costs, provides the total costs associated with the 20-year planning period. First it is important to note that as the aviation program expands, additional space will be needed for classrooms for flight training and avionics, simulator facilities and dispatch area. The planning analysis assumes that the other programs occupying the Technology Center will have a reduced need for space in the building, and that the aviation program activities would be expanded into that area, particularly classroom and simulator activity. Secondly, many of the development items are keyed to expansion of the training program. Actual expansions may vary from the projected or forecast levels. Implementation of the capital improvement program should occur after the demand has been achieved.

Table 9-1
SUMMARY OF TOTAL COSTS
FOR COCHISE COLLEGE AIRPORT

Planning Period	Based on 2000 Dollars			
	Local	State	Federal	Total
Phase 1 (2001-2005)	\$66,030	\$599,427	\$0	\$666,030
Phase 2 (2006-2010)	\$134,230	\$1,209,070	\$0	\$1,342,300
Phase 3 (2011-2020)	\$31,386	\$282,469	\$0	\$313,855
Total Costs	\$232,219	\$2,089,966	\$0	\$2,322,185

Phase 1, the first five years of the program includes acquiring controlling interest in the Runway Protection Zones at each end of the runway. The planning process assumes that the method of controlling access is by fee title. Other methods such as acquiring an aviation easement or by obtaining the land by donation should be investigated. This phase also includes expansion of the apron area to include 5 new shade units and providing new tie down spaces by reconfiguration of the existing ramp.

Phase 2, the second five years of the program includes projects to enhance the operational characteristics of the airport, providing additional apron shades units, and provides a hangar for aircraft maintenance thereby freeing up training space in the Technology Center.

Phase 3. The final ten years of the program provides for apron expansion as the aviation training program adds more aircraft.

AIRPORT DEVELOPMENT AND FUNDING SOURCES

Currently, Cochise College Airport receives funding from two sources. The first source is local funding through the college Capital Improvement Program. The airport competes with other educational requirements not only at the Douglas Campus but other campuses in the Cochise College District. As the College is a public educational institution, it is not anticipated that revenues from typical airport activities, such as Fixed Base Operator leases and fees, automobile rentals, etc. will be available to supplement local funding sources. The second source of funding is through ADOT Aeronautics Division that administers the Arizona Aviation Fund.

Arizona Aviation Fund

Taxes levied by the State on aviation fuel, flight property, aircraft registration lieu tax and registration fees, as well as interest on these funds, are deposited in the Arizona Aviation Funds. Two legislative actions over the previous five years will have a large impact on the fund. The

first action was to divert half of the flight property taxes into the state General Fund. The second action was to configure the Aviation Fund into an annual accrual fund by requiring the Department to spend down the Aviation Fund over four years. The overall impacts of these actions were to reduce the total dollar amount of funding for airport improvements. Projects that meet ADOT's grant criteria are funded at the 90 percent by the State and 10 percent by the airport sponsor.

Federal Aid to Airports.

A major funding mechanism available to airports is the current Airport Improvement Program (AIP). This program, funded by airport users through user taxes and fees, was recently re-authorized (Wendell H. Ford Aviation and Investment Reform Act for the 21st Century, commonly known as "AIR-21"). The Act authorizes funds in the amount of \$3.2 Billion in FY 2001, \$3.2 Billion in FY 2002 and \$3.4 Billion in FY 2003. In FY 2000, Congress appropriated funds in the amount of \$1.95 Billion. The FY 2001 appropriations are unknown at the time of this writing. It is anticipated that similar levels of funding, adjusted for inflation, will be available during the 20 year planning period. AIP funds are distributed to airports in two ways: in the form of entitlements (based upon the actual levels of passenger enplanements), and through discretionary grants. In order for an airport to qualify for discretionary grants, that airport must be listed in the National Plan of Integrated Airport Systems (NPIAS). Cochise College is not listed in the NPIAS and is therefore not eligible for federal funding.

It is recommended that Cochise College apply for inclusion of the Airport in the NPIAS. The greatest advantage is that in Arizona, airport projects that meet the FAA criteria for discretionary grants could receive 91.6 percent of the project cost from the AIP. The balance of the project costs would be divided between Cochise College and ADOT Aeronautics Division. Not only would the College see savings in its portion of the project cost, the impact on the Arizona Aviation Fund would be striking. However, a major disadvantage is that the Airport must comply with FAA grant assurances that could possibly effect the operations of the airport as part of the College's educational requirements. Although the airport meets NPIAS entry criteria, there is no assurance that it would be admitted to the NPIAS due to its proximity to other NPIAS airports as discussed in Section 3.

AIRPORT DEVELOPMENT COST SUMMARY

The listing of projects under each phase in the development program, as shown in Table 9-2 indicates the basic funding requirements and priority assignments to the development of Cochise College Airport through the 20 year planning period assuming no federal participation. Although development items have been numbered, this should not be construed to indicate actual development priority. The construction of any development item should be based on the current demand at that time. The level of State funding shown in Table 9-2 is based upon the maximum eligible amount. Actual State grants received will depend on the amount of State funding for airports and the priority of Cochise College Airport projects compared with other projects within Arizona.

Table 9-2
AIRPORT DEVELOPMENT COST STUDY
FOR COCHISE COLLEGE AIRPORT

Planning Period	Based on 2000 Dollars			
	Local	State	Federal	Total
Phase 1 (2001-2005)				
1. Install Runway End Identifier Lighting (REIL)	\$4,025	\$36,225	\$0	\$40,250
2. Install 5 Shade Units	\$18,975	\$170,775	\$0	\$189,750
3. Acquire 60 acres East End	\$26,162	\$235,456	\$0	\$261,618
4. Acquire 40 Acres West End	\$17,441	\$156,971	\$0	\$174,412
Subtotal Phase 1	\$66,603	\$599,427	\$0	\$666,030
Phase 2 (2006-2010)				
1. Widen Parallel Taxiway	\$9,560	\$86,040	\$0	\$95,600
2. Install Pilot Control System and Ground Communications Outlet	\$5,175	\$46,575	\$0	\$51,750
3. Upgrade Runway Lights to MIRL	\$31,050	\$279,450	\$0	\$310,500
4. Upgrade Taxiway Lights to MITL	\$23,000	\$207,000	\$0	\$230,000
5. Install 5 Shade Units	\$18,975	\$170,775	\$0	\$189,750
6. Install AWOS-3	\$9,200	\$82,800	\$0	\$92,000
7. Construct Aircraft Maintenance Hangar	\$29,670	\$267,030	\$0	\$296,700
8. Upgrade Master Plan	\$7,600	\$68,400	\$0	\$76,000
Subtotal Phase 2	\$134,230	\$1,209,070	\$0	\$1,342,300
Phase 3 (2011-2020)				
1. Increase Apron Area and Tiedowns	\$4,954	\$44,588	\$0	\$49,542
2. Update Master Plan 2015	\$9,000	\$81,000	\$0	\$90,000
3. Update Master Plan 2020	\$10,000	\$90,000	\$0	\$100,000
Subtotal Phase 3	\$31,386	\$282,469	\$0	\$313,855
Total Costs	\$232,219	\$2,089,966	\$0	\$2,322,185

Cost estimates were developed from information provided by construction industry sources as well as review of actual cost on similar airport projects.

In future years, the costs shown in Table 9-2 will need to be adjusted for inflation. This may be accomplished by converting the interim change in the United State Consumer Price Index (USCPI) into a multiplier ratio through the following formula:

$$\frac{X}{Y} = Z \text{ (Change Ratio)}$$

Where X = USCPI in any given year

Y = USCPI in 2000

Z = Change Ratio

Multiplying the change ratio (Z) by any 2000 - based cost estimate presented in this study will yield the adjusted dollar amount appropriate in any future year.

CONCLUSIONS

As previously indicated, it is important that Cochise College examines the process of including the Airport into the NPIAS to facilitate the funding of airport improvements to meet the needs of the educational program. Table 9-3 indicates the distribution of costs with Federal participation. The level of Federal funding shown in Table 9-3 is based upon the maximum eligible amount. Actual Federal grants received will depend on the amount of funding for airports nation wide and the priority of Cochise College Airport projects compared with other projects within the Western Region of the FAA.

Table 9-3
AIRPORT DEVELOPMENT COST STUDY WITH FEDERAL AID
FOR COCHISE COLLEGE AIRPORT

Planning Period	Based on 2000 Dollars			
	Local	State	Federal	Total
Phase 1 (2001-2005)				
1. Install Runway End Identifier Lighting (REIL)	\$1,690	\$1,691	\$36,869	\$40,250
2. Install 5 Shade Units	\$18,975	\$170,775	\$0	\$189,750
3. Acquire 60 acres East End	\$10,988	\$10,988	\$239,642	\$261,618
4. Acquire 40 Acres West End	\$7,326	\$7,325	\$159,761	\$174,412
Subtotal Phase 1	\$39,979	\$190,779	\$436,272	\$666,030
Phase 2 (2006-2010)				
1. Widen Parallel Taxiway	\$4,015	\$4,015	\$87,570	\$95,600
2. Install Pilot Control System and Ground Communications Outlet	\$2,174	\$2,173	\$47,403	\$51,750
3. Upgrade Runway Lights to MIRL	\$13,041	\$13,041	\$284,418	\$310,500
4. Upgrade Taxiway Lights to MITL	\$9,660	\$9,660	\$210,680	\$230,000
5. Install 5 Shade Units	\$18,975	\$170,775	\$0	\$189,750
6. Install AWOS-3	\$3,864	\$3,864	\$84,272	\$92,000
7. Construct Aircraft Maintenance Hangar	\$29,670	\$267,030	\$0	\$296,700
8. Upgrade Master Plan	\$3,192	\$3,192	\$69,616	\$76,000
Subtotal Phase 2	\$84,591	\$473,750	\$783,959	\$1,342,300
Phase 3 (2011-2020)				
1. Increase Apron Area and Tiedowns	\$5,202	\$5,202	\$113,451	\$123,855
2. Update Master Plan 2015	\$3,780	\$3,780	\$82,440	\$90,000
3. Update Master Plan 2020	\$4,200	\$4,200	\$91,600	\$100,000
Subtotal Phase 3	\$13,182	\$13,182	\$287,491	\$313,855
Total Costs	\$138,253	\$679,209	\$1,504,723	\$2,322,185